--IN THE CLAIMS--

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(currently amended) An assay method comprising:

(A) generating:

1) at least a first fragment of a reporter molecule linked to a first interacting domain and at least a second fragment of a reporter molecule linked to a second interacting domain, or

2) nucleic acid molecules that code for A)1) and subsequently allowing said nucleic acid molecules to produce their coded products; then,

(B) allowing interaction of said domains; and

(C) detecting reconstituted reporter molecule activity,

where said reporter molecule catalyses the hydrolysis of the amide bond of ß-lactam rings in ~~can react with a~~ penicillin- or cephalosporin-~~class substrate~~ compounds.

2.(previously presented) An assay according to Claim 1 where said reporter molecule is an enzyme.

3. (previously presented) An assay according to Claim 1 where said reporter molecule is a ß-lactamase.

4. (previously presented) An assay according to Claim 1 where said reaction with said substrate is essentially irreversible.

5. (previously presented) An assay according to Claim 1, 2, 3, or 4 where said substrate comprises Nitrocefin or CCF2/AM.

6. (previously presented) An assay according to Claim 1, 2, 3, or 4 performed in vivo.

7. (previously presented) An assay according to Claim 1, 2, 3, or 4 where said reporter molecule is not normally present in eukaryotes.

8. (previously presented) An assay method comprising:

(A) exposing a host cell to:

1) at least a first fragment of a reporter molecule linked to a first interacting domain and at least a second fragment of a reporter molecule linked to a second interacting domain; or

2) compounds that code therefor; and

(B) detecting reconstituted reporter molecule activity, where a reporter molecule and a host cell are used that yield a signal essentially without any intrinsic background.

9. (previously presented) An assay according to Claim 1, 2, 3, 4, or 8 whose signal to background ratio is about 30:1 or higher.

10. (previously presented) An assay according to Claim 1, 2, 3, 4, or 8 where said signal can be observed by eye.

11. (previously presented) An assay according to Claim 10 where said substrate comprises Nitrocefin.

12. (previously presented) An assay method comprising:

(A) exposing a host cell to:

1) at least a first fragment of a reporter molecule linked to a first interacting domain and at least a second fragment of a reporter molecule linked to a second interacting domain; or

2) compounds that code therefor; and

(B) detecting reconstituted reporter molecule activity, where a reporter molecule substrate is added that becomes trapped within said cell after entrance therein.

13. (previously presented) An assay method comprising:

(A) exposing a host cell to:

1) at least a first fragment of a reporter molecule linked to a first interacting domain and at least a second fragment of a reporter molecule linked to a second interacting domain; or

2) compounds that code therefor; and

(B) detecting reconstituted reporter molecule activity, where a reporter molecule substrate is added that has a fluorescent signal-producing system covalently associated therewith.

14. (previously presented) An assay according to Claim 13 wherein cleavage of said substrate by said reporter molecule results in a change in fluorescent signal production.

15. (previously presented) An assay according to Claim 1, 7, 8, 12, or 13 where a compound is added that leads to a detectable decrease in reporter molecule activity by decreasing interaction between interacting domains.

16. (previously presented) An assay method comprising:

(A) exposing a host cell to:

1) at least a first fragment of a reporter molecule linked to a first interacting domain and at least a second fragment of a reporter molecule linked to a second

interacting domain; or

2) compounds that code therefor; and

(B) detecting host cell survival as an indication of reconstituted reporter molecule activity.

17. (previously presented) An assay method comprising:

(A) exposing a host cell to:

1) at least a first fragment of a reporter molecule linked to a first interacting domain and at least a second fragment of a reporter molecule linked to a second interacting domain; or

2) compounds that code therefor;

(B) further exposing said cell to a compound to be assayed for its ability to interfere with interaction of said first and second domains; and

(C) detecting host cell survival as an indication of interference with said interaction.

Claims 18-42 (canceled).

43. (currently amended) An assay method comprising:

(A) allowing at least two molecules capable of mutual interaction to draw into close molecular proximity at least two reporter molecule fragments which, when in close molecular proximity, form a complex capable of catalyzing the hydrolysis of the amide bond of ß-lactam rings in ~~reaction with a~~ penicillin- or cephalosporin-~~class substrate~~

compounds; and

(B) detecting a signal resulting from said reaction.

44. (previously presented) An assay according to Claim 43 where said reporter molecule is an enzyme.

45. (previously presented) An assay according to Claim 43 where said reporter molecule is a ß-lactamase.

46. (previously presented) An assay according to Claim 43 where said reaction with said substrate is essentially irreversible.

47. (previously presented) An assay according to Claims 43, 44, 45, or 46 where said substrate comprises Nitrocefin or CCF2/AM.

48. (previously presented) An assay according to Claims 43, 44, 45, or 46 performed in vivo.

49. (previously presented) An assay according to Claims 43, 44, 45, or 46 where said reporter molecule is not normally present in eukaryotes.

50. (previously presented) An assay according to Claims 43, 44, 45, or 46 where

there is essentially no intrinsic background in the assay.

51. (currently amended) An assay method comprising:

(A) allowing at least two molecules capable of mutual interaction to draw into close molecular proximity at least two reporter molecule fragments which, when in close molecular proximity, form a complex capable of catalyzing the hydrolysis of the amide bond of ß-lactam rings in ~~reaction with a~~ penicillin- or cephalosporin-~~class substrate~~ compounds; and

(B) detecting a signal resulting from said reaction, where there is essentially no intrinsic background in the assay.

52. (previously presented) An assay according to Claims 43, 44, 45, or 46, or 51 whose signal to background ratio is about 30:1 or higher.

53. (previously presented) An assay according to Claims 43, 44, 45, or 46, or 51 where said signal can be observed by eye.

54. (previously presented) An assay according to Claim 53 where said substrate comprises Nitrocefin.

55. (previously presented) An assay according to Claims 43, 44, 45, or 46, or 51 where said reaction occurs with a cell and said substrate becomes trapped within said

cell after entrance therein.

56. (currently amended) An assay method comprising:

(A) allowing at least two molecules capable of mutual interaction to draw into close molecular proximity at least two reporter molecule fragments which, when in close molecular proximity, form a complex capable of catalyzing the hydrolysis of the amide bond of ß-lactam rings in ~~reaction with a~~ penicillin- or cephalosporin-~~class substrate~~ compounds; and

(B) detecting a signal resulting from said reaction, where said reaction occurs with a cell and said substrate becomes trapped within said cell after entrance therein.

57. (previously presented) An assay according to Claims 43, 44, 45, or 46, or 51where a reporter molecule substrate is added that has a fluorescent signal-producing system covalently associated therewith.

58. (currently amended) An assay method comprising:

(A) allowing at least two molecules capable of mutual interaction to draw into close molecular proximity at least two reporter molecule fragments which, when in close molecular proximity, form a complex capable of catalyzing the hydrolysis of the amide bond of ß-lactam rings in ~~reaction with a~~ penicillin- or cephalosporin-~~class substrate~~ compounds; and

(B) detecting a signal resulting from said reaction, where a reporter molecule

substrate is added that has a fluorescent signal-producing system covalently associated therewith.

59. (previously presented) An assay according to Claim 58 where said reaction results in a change in fluorescent signal production.

60. (previously presented) An assay according to Claim 58 where a compound is added that leads to a detectable decrease in reporter molecule activity by interfering with said mutual interaction.

61. (currently amended) A cellular assay method comprising:

(A) allowing at least two molecules capable of mutual interaction to draw into close molecular proximity at least two reporter molecule fragments which, when in close molecular proximity, form a complex capable of catalyzing the hydrolysis of the amide bond of ß-lactam rings in ~~reaction with a~~ penicillin- or cephalosporin-~~class substrate~~ compounds; and

(B) detecting cell survival as an indication of said reaction.

62. (previously presented) An assay according to Claim 61 where a compound capable of interfering with said mutual interaction is added.